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Listing of Claims:

1-171. (Cancelled)

172. (Currently amended) A method of inducing formation or repair of blood vessels in a first tissue in need of blood vessel formation or blood vessel repair, ~~the method comprising contacting the first tissue with a the steps of culturing and/or expanding an enriched~~ population of cultured or expanded cells enriched for cells that express the marker STRO-1, and contacting said cultured and/or expanded cells to tissue in need of blood vessel formation or repair in order to so as to thereby generate new blood vessels or to repair existing blood vessels in the first tissue.

173-174. (Cancelled)

175. (Currently amended) The method of claim 172 wherein the ~~enriched population of cells that express the marker STRO-1~~ comprise ~~comprises~~ at least 0.01% mesenchymal precursor cells (MPCs) capable of forming a clonogenic colony.

176. (Previously presented) The method of claim 172 wherein the ~~enriched population of cells that express the marker STRO-1~~ comprise ~~comprises~~ at least 1% MPCs capable of forming a clonogenic colony.

177. (Currently amended) The method of claim 172 wherein the ~~enriched population of cells that express the marker STRO-1~~ comprise at least 0.01% ~~STRO-1^{bright}~~ STRO-1^{bright} MPCs.

178. (Currently amended) The method of claim 172 wherein the ~~enriched population of cells that express the marker STRO-1~~ comprise at least 0.1% ~~STRO-1^{bright}~~ STRO-1^{bright} MPCs.

179. (Currently amended) The method of claim 172 wherein the ~~enriched population of cells that express the marker STRO-1~~ comprise at least 1% ~~STRO-1^{bright}~~ STRO-1^{bright} MPCs.
180. (Previously presented) The method of claim 172 wherein the ~~enriched population of cells that express the marker STRO-1~~ are positive for any one or more of the markers 3G5, MUC18/CD146, and alpha-smooth muscle actin.
181. (Previously presented) The method of claim 172 wherein the ~~enriched population of cells that express the marker STRO-1~~ additionally co-express the marker VCAM-1.
182. (Cancelled)
183. (Previously presented) The method of claim 172 wherein the ~~enriched population of cells that express the marker STRO-1~~ are negative for hematopoietic lineage markers, including, but not limited to, CD34, CD45, and glycophorin-A.
184. (Currently amended) The method of claim 172 wherein the population of cultured or expanded cells is ~~enriched~~ derived from a second tissue selected from ~~of the group comprising, but not limited to~~ consisting of skin, liver, kidney, heart, adipose tissue, teeth, dental pulp, retina, brain, hair follicles, intestine, lung, spleen, lymph node, thymus, pancreas, bone, ligament, bone marrow, tendon, and skeletal muscle.
185. (Previously presented) The method of claim 172 wherein the ~~enriched~~ population of cultured or expanded cells is cultured or expanded from cells isolated from a perivascular niche within a vascularised tissue source.

186. (Previously presented) The method of claim 172 wherein the ~~enriched~~ population of cultured or expanded cells is cultured or expanded from cells isolated from a perivascular niche within a non-haemopoietic vascularised tissue.
187. (Currently amended) The method of claim 172 wherein the population of cultured and/or expanded population cells comprises at least 0.01% MPCs capable of forming a clonogenic colony.
188. (Currently amended) The method of claim 187 wherein the population of cultured and/or expanded population cells comprises at least 1% MPCs capable of forming a clonogenic colony.
189. (Currently amended) The method of claim 187 wherein the population of cultured and/or expanded population cells comprises at least 0.1% ~~STRO-1^{bright}~~ STRO-1^{bright} MPCs.
190. (Currently amended) The method of claim 187 wherein the population of cultured and/or expanded population cells comprises at least 1% ~~STRO-1^{bright}~~ STRO-1^{bright} MPCs.
191. (Currently amended) The method of claim 187 wherein the population of cultured and/or expanded population cells comprises at least 10% ~~STRO-1^{bright}~~ STRO-1^{bright} MPCs.
192. (New) The method claim 172 wherein the cells that express the marker STRO-1 co-express any one or more of the markers selected from the group consisting of THY-1, VCAM-1, ICAM-1, PECAM-1, CD49a/CD49b/CD29, CD49c/CD29, CD49d/CD29, CD29, CD61, integrin beta5, 6-19, thrombomodulin, CD10, CD13, SCF, PDGF-R, EGF-R, IGF-1R, NGF-R, FGF-R, Leptin-R and STRO-2.

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193. (New) A method of inducing neovascularisation in a target tissue of a patient, the method comprising the step of administering to the target tissue an effective amount of a population of mesenchymal precursor cells (MPCs) derived from bone marrow enriched for cells that express the marker STRO-1.
194. (New) The method according to claim 192, wherein the target tissue is cardiac tissue.